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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/828,502	03/31/1997	MARK A. RUNKLE	839-377	5041

7590 02/18/2003

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EXAMINER

BERHANE, ADOLF D

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 02/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/828,502

Applicant(s)

RUNKLE ET AL.

Examiner

Adolf Berhane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 1997.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-22 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-8, 15-18 and 24 is/are allowed.
- 6) ☒ Claim(s) 9-14, 19-22, and 25-27 is/are rejected.
- 7) ☒ Claim(s) 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. Applicant is advised that the Notice of Allowance mailed is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

2. Prosecution on the merits of this application is reopened. Claims 9-14, 19-22 and 25-27 are considered unpatentable for the reasons indicated below.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 9, 11-14, 19-22, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Rauhut et al. (US 3,471,708).

Rauhut et al. ('708) disclose in Figures 1 and 2 an electrical interconnection system, comprising a rotary transformer A for coupling a first electrical system II to a

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second electrical system I, comprising a rotor A_r connected to the first electrical system; a stator A_s connected to the second electrical system I; a controller (excitation circuitry of auxiliary motor G or M; not shown) which adjusts an angular position of the rotary transformer; a torque control unit G or M for rotating the rotor, wherein the control unit is a motor; and a gear K for interfacing the motor with the rotor. The auxiliary machine is used for turning the rotor. See column 1, line 68 to column 2, line 11. Rauhut et al. also disclose in column 5, lines 29+ that the machine is rigidly coupled (integrated) with the stator and the rotor in a squirrel cage inductor or wound rotor configuration, and in column 1, lines 58+ that intermediate transformers can also be provided. Lastly, Rauhut et al. disclose in column 5, lines 21+ that the regulating circuit (controller) provides adequate damping.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rauhut et al. (US 3,471,708) in view of Rauhut (US 3,118,318).

Rauhut et al. disclose the claimed invention with the exception of explicitly disclosing the gear as a worm gear. Rauhut ('318) discloses in column 2, lines 18+ a worm gear arrangement for controlling an electric motor. Rauhut ('318) discloses a worm gear arrangement particularly suitable for a rotary transformer, which is susceptible to slip ring and brush damage. See column 4, lines 49+ of Rauhut et al. ('708). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the apparatus of Rauhut et al. ('708) and use a worm gear arrangement to control the rotary transformer as taught by Rauhut ('318) for the purpose of limiting slip ring and brush damage.

Allowable Subject Matter

8. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-2, 4-8, 15-18, 24 and 28 recite, inter alia, an electrical interconnection system, comprising a rotary transformer, wherein the controller


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comprises a first control unit which compares an input order power signal P_0 to a measured power signal P_1 being transferred between the first electrical system and the second electrical system to generate a requested angular velocity signal; and a second control unit which compares the requested angular velocity signal to a measured angular velocity signal of the rotary transformer to generate a drive signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolf Berhane whose telephone number is 703-308-3299. The examiner can normally be reached on 10-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 703-308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0658.


Adolf Berhane
Primary Examiner
Art Unit 2838

Adb
January 30, 2003